

REMARKS

The Examiner is thanked for the thorough review of the present application. Claims 11-12, 18, 22-23, 29, 31 and 34 are currently pending and presented for examination. Claims 11-12, 18, 22-23 and 29 have been rejected under 35 USC 103 as being unpatentable over Kot in view of Ohno, DE '059 and Tokiwa. Claims 31 and 34 have been rejected under 35 USC 103 as being unpatentable over Kot in view of Ohno and Tokiwa.

Applicants respectfully request reconsideration and allowance of the pending claims in view of the following remarks.

Rejections of Claims 11, 12, 18, 22, 23, 29, 31 and 34 under Section 103:

The Examiner rejected independent claim 11 under 35 USC §103(a) as being unpatentable over Kot in view of Ohno, DE 19723059 and Tokiwa. Independent claim 11 recites a print mark measuring device including a camera configured to record or pick up a print mark of a paper track. Additionally, independent claim 11 recites that the print mark measuring device includes an evaluation unit and is directly connected to the control unit to transmit a signal of the print mark to the control unit. Additionally, independent claim 11 recites that a correction factor is determined by the control unit based on the print mark signal to regulate the movement of the drive unit and improve a print image of the park mark. None of the Kot, Ohno, DE '059 or Tokiwa references, alone or in combination, disclose these recitations and accordingly, independent claim 11 is patentable.

The Examiner conceded that Kot fails to disclose: (1) a print mark measuring device including a camera configured to record or pick up a print mark of a paper track; (2) that the print mark measuring device includes an evaluation unit; and (3) that a correction factor is determined by the control unit based on the print mark signal to regulate the movement of the drive unit and improve a print image of the park mark (Office Action, p. 3). To account for these noted deficiencies, the Examiner cited to the Ohno, DE '059 and Tokiwa references. However, as discussed below, the citations to the Ohno, DE '059 and Tokiwa references fail to account for these noted deficiencies, and accordingly, the rejection of independent claim 11 is fatally deficient.

As discussed above, the Examiner conceded that Kot fails to disclose a print mark measuring device including a camera configured to record or pick up a print mark of a paper

track. To account for this noted deficiency, the Examiner contended that Ohno discloses a CCD camera 100,150 and suggested that it would have been obvious to modify Kot and substitute the register measuring device 13 with the CCD camera 100,150 of Ohno (Office Action, p. 3). Kot discloses the register measuring device 13, to supply "actual value signals for the register deviations r_u, r_s in the circumferential and lateral direction to the control and regulating device 12." Upon receiving the register deviations r_u, r_s , a comparator 18 within the control and regulating device 12 compares the register deviations r_u, r_s with desired or nominal value signals w_u, w_s (col. 4, lines 20-23). Kot expressly teaches that, based on the above-comparison by the comparator 18, "comparison signals are used to form actuating variables s_s, s_u , which are fed to the register adjusting devices 10,11" to correct the x and y displacement (col. 4, lines 24-26). Indeed, if the register measuring device 13 of Kot were replaced with a CCD camera 100, the CCD camera would provide image data, not the register deviations r_u, r_s , to the comparator 18 of the control and regulating device 12. As a result, the comparator 18 would be unable to compare the image data from the CCD camera 100 with the nominal value signals w_u, w_s , in order to determine the necessary actuating variables s_s, s_u to displace the adjusting devices 10,11. Kot emphasizes that its intended purpose is to adjust the register devices 10,11, so that image fields are in register with one another (Abstract, col. 2 lines 26-32). Since the proposed modification of Kot would prevent the adjustment of the register devices 10,11, the proposed modification would render Kot unsatisfactory for its intended purpose and thus the proposed modification cannot form the basis of the rejection of independent claim 11, per MPEP 2143.01. Accordingly, the rejection of independent claim 11 is fatally deficient, for this reason alone.

As discussed above, the Examiner conceded that Kot fails to disclose that the print mark measuring device includes an evaluation unit. To account for this noted deficiency, the Examiner contended that the Applicants' specification discusses that DE '059 discloses "a printing press with color register control wherein the register marks printed on the track are picked up by sensors and are evaluated in a measurement head of the sensors." (Office Action, p. 3). The Examiner has misrepresented Applicants' specification. In fact, Applicants' specification merely discusses that DE '059 discloses a cylinder printing press (col. 1 line 16); that a color register does not move outside a tolerance area (col. 1 lines 28-29); and that a sensor signal is transferred to a register controller (col. 4 lines 29-31). Although Applicants' specification does discuss register marks printed on the track are picked up by sensors and

evaluated in a measurement head of the sensor (col. 2 lines 10-12), this appears in the "Summary of the Invention" and does not reference DE '059. Accordingly, the Examiner's subsequent proposed modifications of Kot based on DE '059 are fatally deficient, as they are based on this false contention. Accordingly, the rejection of independent claim 11 is fatally deficient, for this reason alone.

As discussed above, the Examiner conceded that Kot fails to disclose that a correction factor is determined by the control unit based on the print mark signal to regulate the movement of the drive unit and improve a print image of the park mark. To account for this noted deficiency, the Examiner contended that Tokiwa discloses "a correction factor ($Y_n + Y_4 + Y_3$)...by the control unit...to regulate the movement...of the drive unit" and cited to col. 16, lines 5-24 in support thereof. The Applicants already addressed these portions of Tokiwa in the previous Response and argued that they fail to disclose the claimed language of independent claim 11. However, Applicants will repeat these arguments herein and respectfully request that the Examiner provide a response to these arguments. Tokiwa discloses that the feedback speed signal output section 39 "integrates the pulse signals output by the encoder 6, calculates a value S2 proportional to the rotational speed of the driving means M" using the equation cited by the Examiner at col. 16, line 25. Indeed, the S2 value is based on the pulse signals that are proportional to the amount of rotational angular displacement of the driving means M. Thus, the S2 value is expressly based on the rotational angular displacement of the driving means M, and is not based on a print mark signal or a recorded print mark by a camera, as recited in independent claim 11. Accordingly, none of the prior art references, alone or in combination, disclose the claimed invention, as recited in independent claim 11.

The Examiner further contended that it would have been obvious to modify the control and regulation device 12 of Kot such that it is capable of computing the value S2 taught in Tokiwa proportional to the rotational speed of the adjusting devices 10,11 of Kot "for the purpose of increasing the accuracy and speed in controlling the drive unit." (Office Action, p. 4). However, even if such a modification was obvious, it would destroy the purpose and/or operability of Kot. The control and regulating device 12 in Kot compares actual deviations of the marks 9, 15 and 16 relative to the line 14, with desired deviations, and transmits actuating variables to the adjusting devices 10,11, based on this comparison. Thus, Kot emphasizes that the adjusting devices 10,11 should be actuated in the appropriate x,y, directions, based on this

comparison. If the Examiner's suggested modification of Kot were performed, in which the control and regulating device 12 were instead assigned to determine some corrective rotational speed of the adjusting device 10,11, the control and regulating device 12 would entirely disregard the deviations of the marks 9, 15 and 16 relative to the line 14, as well as determining an actuating variable of the adjusting devices 10,11 in the x,y directions, and instead would determine some corrective rotational speed of the adjusting devices 10,11. Since the suggested modification would render Kot unsatisfactory for its intended purpose, it cannot form the basis of the modification of Kot. MPEP §2143.01. Accordingly, independent claim 11 is patentable.

Accordingly, independent claim 11 is patentable. Independent claims 29 and 31 include recitations which are similar to independent claim 11. The arguments stated above with regard to independent claim 11 are restated herein with regard to independent claims 29 and 31. Accordingly, independent claims 11, 29 and 31 are patentable. Their dependent claims, which recite yet further distinguishing features, are also patentable, and require no further discussion herein.

Conclusion

Accordingly, Applicants respectfully request that the Examiner timely pass the application to allowance. Please grant any extensions of time required to enter this paper. The Commissioner is hereby authorized to charge any appropriate fees due in connection with this paper or credit any overpayments to Deposit Account No. 19-2179.

Respectfully submitted,

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